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File

November 20, 1975

217/782-6760

WINNEBAGO COUNTY - Land Pollution Control
New Milford/Pagels Pit

RECEIVED

DEC 1 1975

Rockford Blacktop Construction Co.
600 Boylston Street
Loves Park, Illinois 61111

ILL.E.P.A. - D.L.P.C.
NORTHERN REGION

ATTN: C. J. Howard

Dear Mr. Howard:

This will acknowledge receipt of a series of requests for issuance or renewal of certain supplemental permits. These requests are enumerated and listed as follows:

<u>Date Received</u>	<u>Request</u>
1. 10-24-75	Request to open dump white goods
2. 10-29-75	Request to renew 74-93, 74-124, 74-125 and 74-131
3. 10-29-75	Request to accept 2000 gal./quarter of mop water from Rockford Can Co.
4. 10-29-75	Request to accept 750 gal./6 months of caustic solution from General Electric

Considerable attention has been devoted to the subject site of late. In review of the files I find that Agency policy relative to liquid or special waste disposal at your site has fluctuated over a period of years. With this in mind I've reviewed the situation critically in terms of establishing a specific policy.

Your site's design is unique to this State. Only one other site in Illinois employs a liner of any comparison and it consists of natural materials (ie. Bentonite or processed Montmorillinite clay). Several other permitted sites rely on natural clay liners, wherein thicknesses and permeabilities have ranged on the order of 5 to 10 feet and 10^{-7} to 10^{-8} cm/sec. respectively.

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On the other hand the Asphalt Institute tells us that asphalt has a permeability on the order of 10^{-7} cm/sec. Given a 2" liner thickness and a driving head of only 1' (Note: 3.5" of infiltration by rainfall will result in approximately 1' of "head") you may expect leachate to seep through the liner at a rate of .72 ft/yr. At this rate a leachate volume of approximately 4200 gallons per acre per year will leave the site. If the driving head were 4' (a "head" of this magnitude would result from approximately one year of infiltration) then seepage losses might be on the order of 15,000 gallons per acre per year. Furthermore, unlike natural soil asphalt does not possess the ability (ie. adsorption, ion exchange, etc.) to attenuate harmful contaminants. In short, it is simply not realistic to assume that Pagel's Pit will ever achieve the so called "bathtub effect".

Critical to the operation of the site is the necessity of removing any leachate which might be accumulating above the asphalt. Based on the analyses I have seen it is possible that the Rockford Sanitary District can accept Pagel's leachate in limited quantities. If not it will be necessary to dispose of it at a geologically suitable landfill site. Further, this procedure will be necessary for an undetermined length of time but probably for many years after closure.

In addition, leachate recirculation is not advisable. Studies at the University of Louisville have shown that although leachate volumes are somewhat diminished by evaporation the concentrations of various critical parameters increase dramatically. In other words the Sanitary District may be able to accept the leachate now but possibly not at a later time (after several recirculations).

Based on the above the Agency will not consider supplemental permit requests for disposal of any waste containing toxic elements (ie. Cr, Zn, Pb, Cu, As, Hg, etc., etc.) Also it now is this Division's policy to disallow ordinary land disposal of flammable liquids (ie. liquids having flash points of less than 100°F. The Agency will consider requests to accept less obnoxious special wastes. However, your attention is directed to Special Condition #1 of Supplemental Permit No. 75-491 issued September 4, 1975. Because this condition has not been met the Agency must, at this time, deny the aforementioned and enumerated supplemental permit requests.

Before the Agency will consider additional supplemental permit requests:

1. Condition #1 of the September 4, 1975 supplemental permit (regarding a suitable liner monitoring system) must be met.
2. Leachate recirculation must cease.

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3. Leachate already collected should be removed to the Sanitary District or an approved sanitary landfill.
4. It should be agreed that leachate collected in the future be removed as soon as the tanks are filled.
5. A method to determine the level of leachate in the fill should be devised and implemented.

I sincerely regret having to bring these points to your attention but feel it only fair to explain our position in its entirety rather than in piecemeal fashion. As I am sure you will have some questions, feel free to contact me at (217)782-6760.

Sincerely,

ENVIRONMENTAL PROTECTION AGENCY



Michael W. Rapps
Permit Section
Division of Land Pollution Control

MWR:ds

cc's/-Northern Region ✓
-Rockford Sanitary District
-Jack Moore
-C. E. Clark